

TITLE

## METHOD OF DISCOVERING PATTERNS IN SYMBOL SEQUENCES

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ABSTRACT OF THE INVENTION

10 A method of discovering one or more patterns in two sequences of symbols  $S_1$  and  $S_2$  includes the formation, for each sequence, of a master offset table that groups for each symbol the position in the sequence occupied by each occurrence of that symbol. The difference in position between each occurrence of a symbol in one of the sequences and each occurrence of that same symbol in the other sequence is determined

15 and a Pattern Map is formed. For each given value of a difference in position the Pattern Map lists the position in the first sequence of each symbol therein that appears in the second sequence at that difference in position. The collection of the symbols tabulated

20 for each value of difference in position thereby defines a parent pattern in the first sequence that is repeated in the second sequence.

A computer readable medium having instructions for controlling a computer system to perform the method and

25 a computer readable medium containing a data structure used in the practice of the method are also disclosed.